



Office of Childhood
Office of Special Education
January 2024

Annual Report on Infants Referred to First Steps Identified through the Newborn Hearing Screening Program

Purpose

Under the Newborn Hearing Screening law, RSMo 191.931, the Missouri Department of Elementary and Secondary Education shall “monitor the delivery of early intervention services to those infants identified by the newborn hearing screening program and report annually to the department of health and senior services.” Eligible infants are served by the Missouri First Steps Program under Part C of the Individuals with Disabilities Education Act (IDEA).

This report provides information related to the number of infants referred to First Steps born in 2022 and identified with permanent hearing loss through the newborn hearing screening program.

Infants Enrolled in the First Steps Program

As of November 6, 2023, 125 infants born in 2022 were identified with hearing loss by the Department of Health and Senior Services (DHSS). It is important to note that the 125 infants included infants who received incomplete results or unknown types of hearing loss based on what was reported to DHSS. Infants who were determined to be suffering from middle ear pathology (e.g., fluid in the middle ear from colds, ear infections) and who do not have a permanent hearing loss could be removed from the list at a later date based on updates received from audiologists.

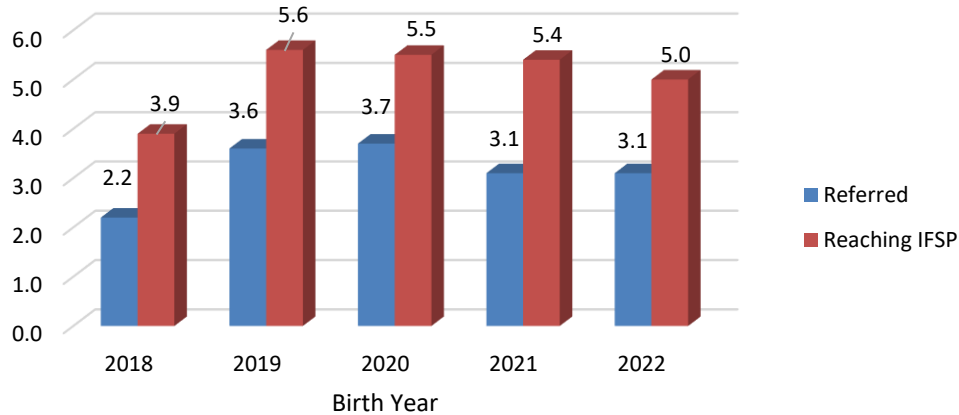
Of the 125 infants identified by DHSS, 107 (85.6%) were referred to the First Steps program. Of the 107 infants referred to First Steps, 91 (85.0%) were found eligible and had an Individualized Family Service Plan (IFSP). The remaining 16 infants did not reach IFSP status due to the following reasons: 10 children were unable to be located and 6 children were withdrawn by a parent or guardian.

Of the 91 infants who had an IFSP, 84 (92.3%) were in active status as of November 20, 2023, one child had been withdrawn by a parent or guardian, four children moved out of state, and two children were deceased.

Average Age at Referral

Table 1 represents the average age in months of infants at the time of referral to First Steps for the 107 children referred. The average age at referral for infants born in 2022 was 3.1 months. The average age at the time of initial IFSP for the 91 infants who reached IFSP was 5.0 months.

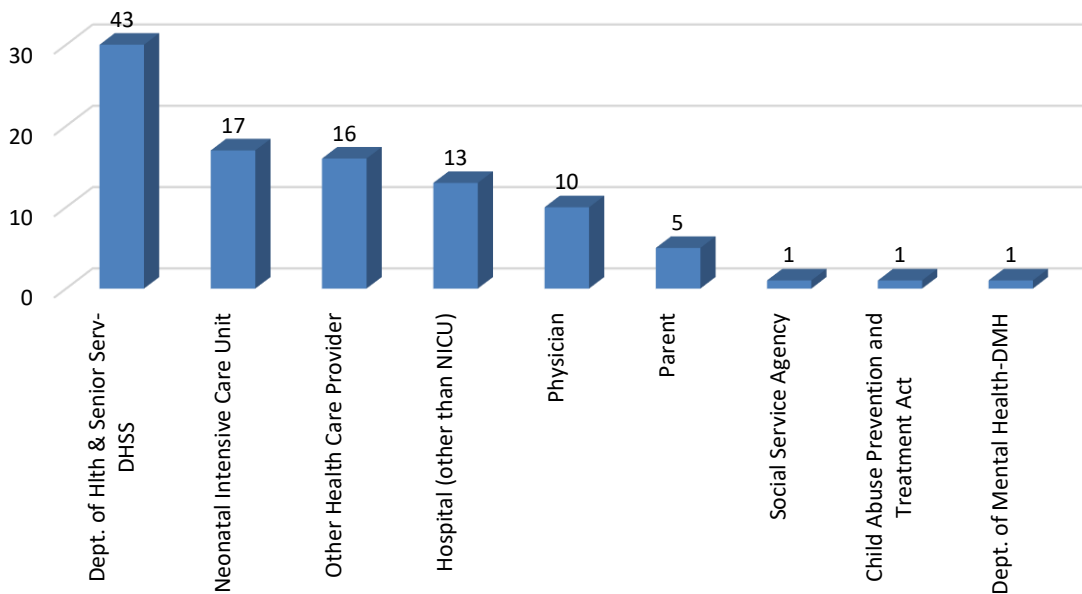
Table 1. Average Age in Months at Referral and Reaching IFSP



Referral Sources

Table 2 represents the sources of initial referrals to First Steps for infants with hearing loss identified by DHSS. Of the 107 infants referred to First Steps, most initial referrals were made by Department of Health and Senior Services (DHSS) with 43 (40.2%), Neonatal Intensive Care Unit with 17 (15.9%), Other Health Care Provider with 16 (15.0%), and Hospital (other than NICU) with 13 (12.1%).

Table 2. First Steps Referral Sources



Eligibility Categories

Table 3 provides the primary First Steps eligibility category for the 91 infants determined eligible for services and reached IFSP. There were 75 children (82.4%) found eligible due to a diagnosed condition.

Table 3. Reasons for Eligibility

Reason for Eligibility	Number of Infants	Percent of Eligibility
Diagnosed Condition	75	82.4%
Developmental Delay - Half age delay	11	12.1%
Newborn Condition	4	4.4%
Other Condition	1	1.1%
Total	91	100.0%

Type of Hearing Loss

Table 4 represents the type of hearing loss and related First Steps referral and eligibility percentages for the 125 infants identified by DHSS. Of the 125 infants, 81 (64.8%) had a sensorineural hearing loss. Of the 81 infants with sensorineural hearing loss, 63 (77.8%) were referred to First Steps and, of those referred, 54 (85.7%) reached IFSP.

Table 4. Type of Hearing Loss and First Steps Status

Type of Loss	Number of Infants	Referred to First Steps	Reached IFSP	Percent of Reached IFSP
Sensorineural	81	63	54	85.7%
Unknown Type	17	17	12	70.6%
Permanent Conductive	13	13	13	100.0%
Auditory Neuropathy	5	5	4	80.0%
Mixed	5	5	4	80.0%
Conductive	4	4	4	100.0%
Total	125	107	91	85.0%

Service Authorizations

Table 5 represents the First Steps service authorizations for the 84 infants identified by DHSS who were in active IFSP status as of November 20, 2023. There were 305 active authorizations for the 84 infants with hearing loss. The top three categories of First Steps service authorizations were:

- 1) 110 (36.1%) authorizations for Special Instruction;
- 2) 96 (31.5%) authorizations for Audiology; and
- 3) 34 (11.1%) authorizations for Occupational Therapy.

Table 5. First Steps Authorizations

	ABR: Audiology evoked potential	AT Service	Consultation/ Facilitation with Others	Direct Child Service	Evaluation/ Assessment	Family Education/ Training/Support	OAE limited: Evoked otoacoustic	Tympanometry (impedance testing)	Visual Reinforcement Audiometer	Grand Total	Percentage
Audiology	9	29	0	4	28	3	21	1	1	96	31.5%
Occupational Therapy	0	0	5	29	0	0	0	0	0	34	11.1%
Physical Therapy	0	0	3	29	0	0	0	0	0	32	10.5%
Special Instruction	0	1	16	51	35	7	0	0	0	110	36.1%
Speech Language Pathology	0	0	6	26	0	1	0	0	0	33	10.8%
Grand Total	9	30	30	139	63	11	21	1	1	305	100.0%

* ABR – Auditory Brainstem Response

* AT – Assistive Technology

* OAE – Otoacoustic Emissions